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The Daniels Nursery

LONG LAKE, MINNESOTA

Write us for our price on the fruits recommended
in this circular.

Minnesota State Horticultural Society

1921

3,760 MEMBERS IN 1920

This circular describes:

Best varieties of fruits to plant in Minnesota

Best shrubs to plant to adorn your home

Best varieties of vegetables for home garden

What to use in spraying fruit trees

All about the Society—its ideals and objects

\$1.10	YOU GET FOR	\$1.10
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The Minnesota Horticulturist for 12 months

Membership in Horticultural Society

Annual Report—paper bound—for 1920

Two Plant Premiums (See Page 5)

Use of Library

President—C. L. Smith, Court House, Minneapolis.

Secretary—R. S. Mackintosh, University Farm, St. Paul.

Office and Library

Horticultural Building, University Farm,
St. Paul.

OBJECT OF THE SOCIETY

This society, supported in part by the state, has for its work the securing and dissemination of knowledge pertaining to tree, fruit and vegetable growing, the culture of flowers and related topics.

The society holds regular summer and winter meetings, at which fruits, vegetables and flowers are exhibited, papers and reports on horticultural topics are read, and the personal opinions of the members secured in the discussions which follow.

A number of Trial Stations in different parts of the state, operated by members, are making practical tests of things new and desirable. The reports made by the superintendents of these trial stations, and the reports of the vice-presidents of the society, along with the papers and addresses presented and discussions had at the meeting of the society, with other information of value, are compiled by the secretary.

IDEALS

The Society believes in and is working toward the following ideals:

For every home—

A vegetable garden to supply the family.

A small fruit garden.

A small apple and plum orchard.

Plantings of trees, shrubs and flowers to make it attractive.

For every farm—

A shelter belt of deciduous and evergreen trees to protect the farmstead.

For every school—

Grounds adorned with trees, shrubs and flowers.

The study of gardening in the public schools for all boys and girls.

For Minnesota—

The suitable planting of trees and shrubs on all highways.

Public parks and playgrounds for every village and city.

The commercial production of vegetables, fruits, nursery stock, seeds and flowers.

The origination of better varieties of fruits by the planting of seeds.

The eradication of injurious insects and plant diseases.

MEMBERSHIP

Annual Members.—Any person may become a member of this society for the year 1921 by payment of the annual fee of \$1, which pays for the society monthly for a full year from the date of membership, selections of new fruits and all the other privileges of membership for the year.

All annual memberships expire the first day of the annual winter meeting.

Life Members.—The life membership fee is \$10, payable in two annual installments of \$5.00 each if preferred. A life member is entitled to all the privileges of an annual member and also, if desired, a file of the back reports, as complete as possible, some twenty volumes, constituting a very valuable horticultural library.

On account of increased cost of printing and binding all annual and life members must send ten cents additional for paper bound, or thirty cents for cloth bound report.

PUBLICATIONS

The society issues a monthly magazine of thirty-two pages.

"THE MINNESOTA HORTICULTURIST"

(Samples free on application)

These magazines contain the material previously referred to and other matter of timely interest.

At the close of the year the twelve magazines, with the journal of the society's meetings, list of members, index, etc., are bound together, making the annual report of the society, and entitled.

"Trees, Fruits, Flowers and Vegetables of Minnesota."

PRIZES OFFERED BY THE SOCIETY

1. **ONE THOUSAND DOLLARS** is offered as a Premium by this Society for a Seedling Apple Tree "as hardy and prolific as the Duchess," with fruit equal to "the Wealthy in size, quality and appearance, and that will keep as well as the Malinda."

2. **SIX HUNDRED to ONE THOUSAND DOLLARS** in prizes for one acre orchards, planted in the spring of 1914. Prizes to be awarded in September, 1921.

3. **ONE HUNDRED DOLLARS** for a new plum. Fund contributed by J. H. Fiebing. Must be an attractive plum equal to Surprise in quality, at least one and one-half inches in diameter, etc. Tree hardy, productive, an early and regular bearer. (See further requirements 1918 report, page 350).

PREMIUM BOOKS

Given to Members (New or Old) for Securing New Members—But Not to Both. Provided Selection is Made During the Current Year—Not Later.

Fifty cents is allowed each new member, or to each member securing a new member, to be applied as payment on any book, the balance, if any, to be paid in cash or by securing other members. Encourage your neighbors and friends to join—it helped them and helps you.

Good books supplement the work of this society. Prices of books are changing, consequently it is difficult to quote exact prices. Fill your library with good horticultural books and bulletins.

Amateur Fruit Growing, Green, cloth; 75 cents.

Vegetable Gardening, Green, cloth bound, \$1.50.

Forestry of Minnesota, Green, cloth, 50 cents.

Popular Fruit Growing, Green, paper bound, 75 cents; cloth, \$1.50.

Farmers' Windbreaks and Shelter Belts, Green, illustrated, paper bound, 50 cents.

Landscape Gardening, Waugh, \$1.25.

Evergreens and How to Grow Them, Harrison, cloth, 50 cents.

Practical Landscape Gardening, Cridland, \$2.00.

The Gladiolus, Crawford & Van Fleet, \$1.60.

Milady's House Plants, Palmer, paper bound 75 cents; cloth, \$1.00.

Principles and Practice of Pruning, Kaines, \$2.50.

A more extended list may be secured by writing to the secretary. Full list too long to print.

If plant premiums are preferred instead of books, two lots may be selected. See list page 5.

SPRAY PROGRAM FOR MINNESOTA

The spray mixture for apples and plums best suited to Minnesota conditions is made by adding 5 quarts of liquid commercial lime-sulphur and $1\frac{1}{2}$ pounds of powdered arsenate of lead to 50 gallons of water. Spraying should always be done under high pressure, 200 pounds or more is better than a lower pressure. Cover every tree thoroughly, and above all be sure to do the spraying at the proper time, as a delay of a few days will greatly reduce the effectiveness of the work.

APPLES

First Spray: When first flower buds show pink.

Pests controlled—Early stages of leaf eating caterpillars, curculio, scab and codling moth caterpillars.

Second Spray: As soon as petals drop from flowers and before calyx cup closes.

Pests controlled—same as listed under 1st spray.

Third Spray: Last week of June or first week of July.

Pests controlled—Scab, apple maggot (railroad worm) and leaf eating insects.

Fourth Spray: About July 20th.

Pests controlled—Scab, apple maggot (railroad worm), plum curculio and leaf eating insects.

Special for Plant Lice: If plant lice are noticed on apples, plums or other plants in early spring, spray with nicotine sulfate, $\frac{1}{2}$ pint of 40 per cent nicotine sulfate and 2 or 3 pounds of soap in 50 gallons of water, as soon as discovered. The first ones usually appear just as the buds are bursting. If lice are very numerous when applying regular sprays, nicotine sulfate may be added to regular mixtures. It is more effective when used alone.

PLUMS

First Spray: Just before blossoms open.

Pests controlled:—Curculios, plum pocket, blossom blight, twig blight.

Second Spray: When plums are the size of small peas.

Pests controlled:—Curculios and brown rot.

Third Spray About July 1st.

Pests controlled:—Curculios and brown rot.

Fourth Spray When fruit first starts to color.

Pests controlled:—Curculios and brown rot.

MINNESOTA STATE FRUIT-BREEDING FARM

This farm is owned and operated by the state for the sole purpose of breeding new varieties of fruits better adapted to the needs of this climate than those now planted. In the years since it was established it has already accomplished very much, and new fruit plants of a number of varieties of apparently large value are being sent out for trial to the members of this society. Every member should certainly secure some of these plants and trees for testing and take part in this most interesting and important work of breeding new fruits.

THE SOCIETY LIBRARY

Contains about 3,000 volumes and is open to all, but especially to the members. Books are loaned under certain simple restrictions.

PLANT PREMIUMS FOR 1921

All members, old or new, making application prior to April 1st, are entitled to select two lots of plant premiums sent postpaid.

Requests received after April 1st, cannot be filled.

Right of substitution is reserved in case the premium selected cannot be furnished.

Always give number of membership ticket.

Select two lots by number.

1. Packet, selected Hubbard squash seed No. 23.
2. Packet, small early maturing strain Hubbard squash No. 20.
3. Packet, Table Queen squash seed.
4. Ten rooted cuttings of house plants.
5. Ten rooted chrysanthemum cuttings.
6. Two dahlia roots.
7. Two canna roots.
8. Three iris roots.
9. Four gladiolus bulbs. Choice selection.
10. Six varieties of annual flower seeds.
11. Six perennial plants, assorted.
12. Two packets zinnia seed, and one packet pe-tunia seed.
13. Packet of a selected strain of Ameer peas.
14. Packet of a selected strain of Refugee beans.
15. Three plants hardy shrubs.
16. Six plants of cotoneaster—a desirable hardy shrub.

The Following Premiums Are New Fruits From the Minnesota State Fruit-Breeding Farm.

They give promise of being valuable, but the full measure of their value is yet to be determined. Members receiving these new fruits do so with the understanding that they are receiving them for trial and that their success or failure is to be reported on later.

17. Two plants of some of the new gooseberry selections.

18. Twelve scions of plums, our selection. Red Wing (Minn. No. 12), Tonka (Minn. No. 21), and Monitor (Minn. No. 70).

19. Twelve scions of some of the new plum selections.

20. Twelve scions Zumbra cherry.

21. Twelve scions of new seedling apples.

22. Twelve plants of everbearing strawberry. Our selection from Nos. 6, 25, 32, 41, 42, 47, 48, 56, 76, 80 and 83.

23. Twelve plants of June-bearing strawberry. Our selection from Nos. 97, 489, 754, 775, 801, 848, 916, 924, 935 (Minnehaha) and 993.

24. Six plants of each of the new raspberries Nos. 10 and 11.

25. Six plum stocks to be set out in orchard or garden for budding or grafting next season.

A Cash premium if preferred. The member securing a new member may retain 30 cents from the annual fee instead of receiving the premium offered.

HARDY SHRUBS RECOMMENDED FOR MINNESOTA PLANTING

Common Name	Scientific Name
Thunberg's Barberry	Berberis Thunbergii
Siberian Pea Tree	Caragana arborescens
Silver Berry	Eleagnus argenta
Strawberry Tree	Euonymus Europaeus
Sea Buckthorn	Hippophae rhamnoides
Large Flowered Hydrangea	Hydrangea paniculata gr.
Hydrangea, Hills of Snow	Hydrangea arborescens grandiflora
Tartarian Honeysuckle	Lonicera Tartarica
Mock Orange	Philadelphus coronarius
Golden Mock Orange	Philadelphus coronarius var. aurea
Shrubbery Cinque Foil	Potentilla fruticosa
Missouri Flowering Currant	Ribes aureum
Rose Acacia	Robinia hispida
Japanese Rose	Rosa rugosa
Golden Elder	Sambucus nigra var. aurea
Buffalo Berry	Shepherdia argenta
Bumalda Spiraea	Spiraea Bumalda
Anthony Waterer Spiraea	Spiraea Bumalda var.
Billard's Spiraea	Spiraea Billardii
Douglas' Spiraea	Spiraea Douglassi
Japanese Spiraea	Spiraea Japonica
Meadow Sweet Spiraea	Spiraea salicifolia
Van Houttei's Spiraea	Spiraea Van Houttei
Persian Lilac	Syringa Persica
Common Lilac	Syringa vulgaris
Japanese Lilac	Syringa Japonica
Snowball	Viburnum Opulus vr. sterile
Wayfaring Tree	Viburnum lantana

SHRUBS NATIVE TO THE STATE DESIRABLE FOR PLANTING

New Jersey Tea	Ceanothus Americanus
Red Osier Dogwood	Cornus stolonifera
Leatherwood (Wickopy)	Dirca palustris
Wahoo	Euonymus atropurpureus
Ninebark	Physocarpus opulifolia
Staghorn Sumac	Rhus Typhina
Smooth Sumac	Rhus Glabra
Dwarf Sumac	Rhus copalina
Wild Rose (tall)	Rosa lucida
Wild Rose (dwarf)	Rosa blanda
Common Elder	Sambucus Canadensis
Snowberry	Symphoricarpus racemosus
Coral Berry, Indian Currant	Symphoricarpus vulgaris
Sheepberry	Viburnum lentago
Black Haw	Viburnum dentatum
Dockmackie	Viburnum acerifolium
Highbush Cranberry	Viburnum opulus
Prickly Ash	Zantoxylum Americanum

HARDY PERENNIAL VINES

Ampelopsis Engelmani or American Ivy, Wild Grape, Beta Grape, Lycium Chinense or Matrimony Vine, Bitter Sweet.

HARDY HEDGE PLANTS

Buckthorn, Alpine Currant, Cotoneaster acutifolia, Thunberg's Barberry, Dogwood, Willow.

SIX HARDY HERBACEOUS PERENNIALS

Phlox, Peony, Larkspur, Bleeding Heart, Lily of the Valley, Day Lily, Iris.

VARIETIES OF VEGETABLES RECOMMENDED FOR MINNESOTA HOME GARDENS

- Asparagus—Colossal, Palmetto, Reading Giant.
Bush Beans, Wax—Wardwell, Pencil Pod, Golden Wax.
Bush Beans, Green—Bountiful, Refugee, Stringless Green Pod.
Pole Beans, Green—Kentucky Wonder.
Pole Beans, Shell—Horticultural.
Beans, Lima—Dwarf preferred, except in favored locations.
Beets—Detroit, Eclipse, Egyptian.
Cabbages, Early—Wakefield, Copenhagen.
Cabbages, Late—All Seasons, Danish Ball or Holland.
Carrots—Chantenay, Danvers Half Long.
Cauliflower—Erfurt, Snowball.
Celery, Early—Golden, White Plume.
Celery, Late—Winter Queen, Giant Pascal.
Celeriac—Erfurt.
Corn, Sweet—Golden Bantam, Crosby, Stowells Evergreen.
Cucumbers—Boston and Chicago Pickling, White Spine.
Egg Plant—New York Spineless, Black Beauty.
Endive—White and Green Curled.
Horse Radish.
Kale—Dwarf and Tall Curled Scotch.
Kohl-Rabi—Vienna.
Lettuce, Leaf—Grand Rapids, Black Seeded Simpson, Iceberg.
Lettuce, Head—Big Boston, Hanson.
Muskmelon—Gem, Osage, Montreal, White Japan.
Onion—Red, Yellow and White Globe.
Onion Sets—Any color or kind.
Parsnip—Hollow Crown, Guernsey.
Parsley—Moss Curled.
Peas, Early—Alaska, Thomas Laxton, Marvel (Dwarf), Gradus.
Peas, Late—Telephone, Champion of England.
Peppers—Bell, Ruby King, Cayenne.
Potatoes—Early Ohio, Irish Cobbler, Triumph, Burbank, Burbank, Russet, Green Mountain, Rural New-Yorker.
Pumpkins—Long or Round Pie.
Radish—Scarlet Globe, Icicle.
Radishes, Winter—Half-Long and Round Black Spanish.
Rhubarb—Victoria, Linnaeus.
Rutabaga—Purple Top, Yellow-Swede.
Salsify—Sandwich Island.
Spinach—Long Standing, Bloomsdale.
Squash, Summer—Scallop, Crookneck.
Squash, Winter—Marrow, Hubbard.
Swiss Chard—Lucullus.
Tomatoes, Early—Earliana, Bonny Best, Chalk Early Jewell.
Tomatoes, Late—Stone.
Turnips—Purple Top, Egg.
Watermelons—Kleckley Sweet, Dark Icing.

FRUITS FOR MINNESOTA PLANTING

List adopted by the Minnesota State Horticultural Society, December 9, 1921, for the Guidance of Planters.

APPLES

First degree of hardiness; Oldenberg (Duchess), Hibernial, Patten's Greening.

Second degree of hardiness; Okabena, Wealthy, Malinda, Anisim, Iowa Beauty, Lowland Raspberry, Milwaukee, Superb.

Valuable in some locations: Wolf River, Yellow Transparent, McMahon, Northwestern Greening, Tetofsky, Peerless, Salome.

Most profitable varieties for commercial planting in Minnesota; Wealthy, Oldenberg (Duchess), Okabena, Anisim, Patten's Greening.

Recommended for top-working on hardy stocks; Wealthy, Malinda, Northwestern Greening, Milwaukee, McIntosh, Salome, Windsor Chief, Delicious.

Varieties for trial: Eastman, Red Wing, Red Warrior, Dudley, Lord's L, Minnehaha (Minn. No. 300).

CRABS AND HYBRIDS

For general cultivation: Florence, Whitney, Early Strawberry, Sweet Russet, Transcendent, Virginia, Hyslop.

Varieties for trial: Faribault, Dartt, Success.

PLUMS AND HYBRID PLUMS

For general cultivation: De Soto, Forest Garden, Wolf (freestone), Wyant, Stoddard, Terry, Surprise.

Most promising for trial: Elliot (Minn. No. 8), Red Wing (Minn. No. 12), Tonka (Minn. No. 21), Monitor (Minn. No. 70), Underwood (Minn. No. 91), Zumbra (Plum-Cherry Hybrid), Compass Cherry, Hanska, Opata, Sapa, Stella, Emerald.

GRAPES

First degree of hardiness: Beta, Janesville, Hungarian.

Second degree of hardiness: Moore's Early, Campbell's Early, Brighton, Delaware, Worden, Concord, Moore's Diamond, Wyoming Red.

RASPBERRIES

Red varieties: King, Sunbeam, Miller, Loudon, Latham (Minn. No. 4), Ohta.

Black and purple varieties: Palmer, Gregg, Older, Columbian, Cumberland.

BLACKBERRIES

Ancient Briton, Snyder, Eldorado.

CURRANTS

White Grape, Victoria, Long Bunch Holland, Pomona, Red Cross, Perfection, London Market, Wilder, Black Naples.

GOOSEBERRIES

Houghton, Downing, Champion, Pearl, Carrie.

STRAWBERRIES

Perfect varieties: Bederwood, Senator Dunlap, Minnesota (Minn. No. 3), Minnehaha (Minn. No. 935.)

Imperfect varieties: Warfield.

Everbearing varieties: Progressive, Superb, Duluth (Minn. No. 1017).

ORNAMENTAL FRUITING SHRUBS

Valuable for trial: Dwarf Juneberry, Sand Cherry, Buffalo Berry, High Bush Cranberry.

NUT FRUITS

Shellbark Hickory, Black Walnut, Butternut.